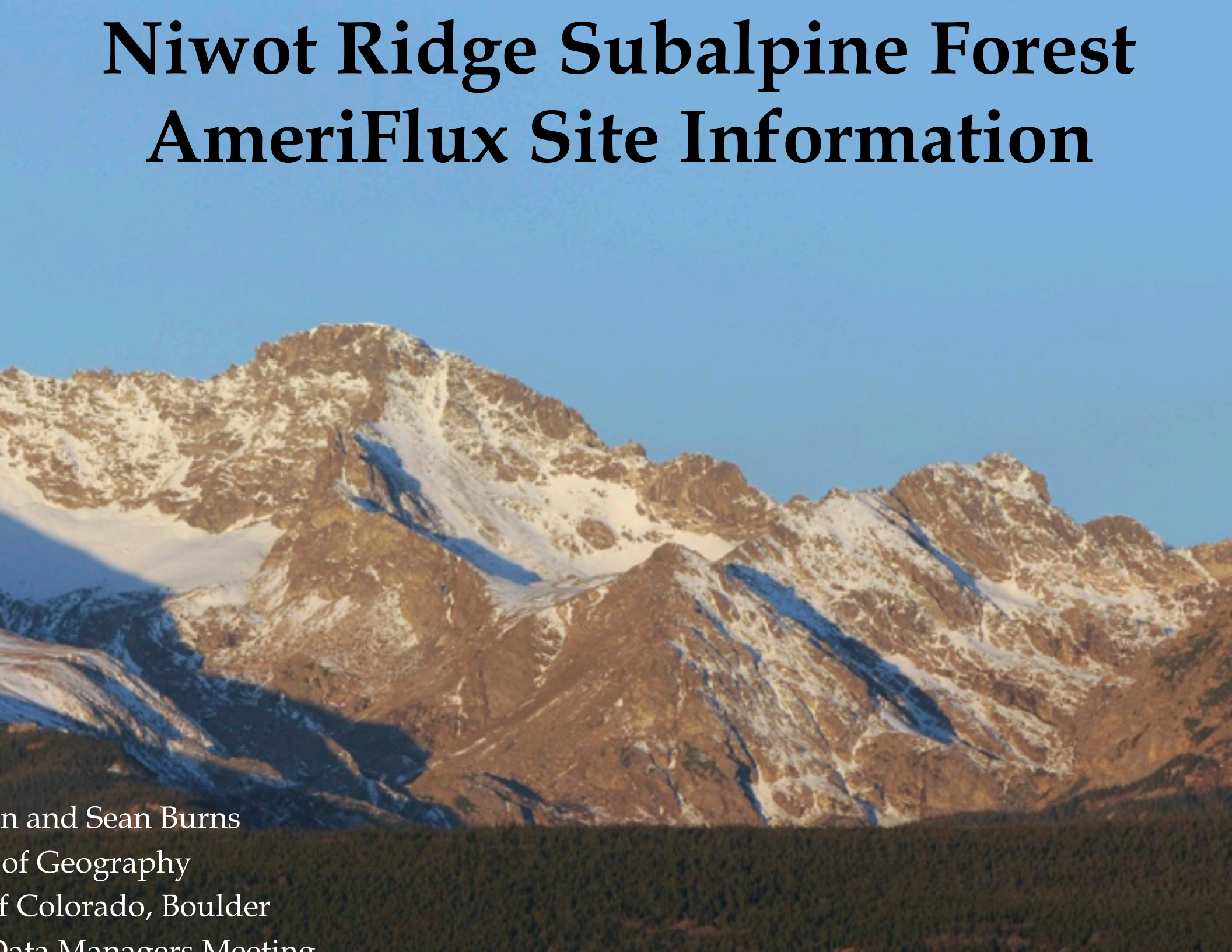
Niwot Ridge Subalpine Forest AmeriFlux Site Information



n and Sean Burns
of Geography
f Colorado, Boulder
Data Managers Meeting

ter Blanken:

Research Team / Research Questions

Site Description

an Burns:

Tower and Instrumentation

Data flow and processing

er Blanken (site PI)

n Burns (site manager, data processing)

e Bowling (co-PI, CO_2 and isotopes)

s Monson (co-PI, data analysis)

litional collaborators: Mark Williams, Noah Mo
ian Harpold (CU INSTAAR), David Noone, Ma
kelhammer (CU CIRES), Dave Moore, Paul Bro
zona), Jielun Sun, Don Lenschow, Steve Oncley
e Gochis, Britt Stephens (NCAR), Bill Massman
n Frank (USFS), Dean Anderson (USGS), Stefan

ospheric CO_2 is increasing; requires a better
erstanding of sources, sinks, and transport

mpts to calculate scalar budgets requires accurate
wledge of transport & airflows in complex topogra

trols on snowmelt as related to NEE

at are the environmental factors that control exch
O_2, water vapor and heat?

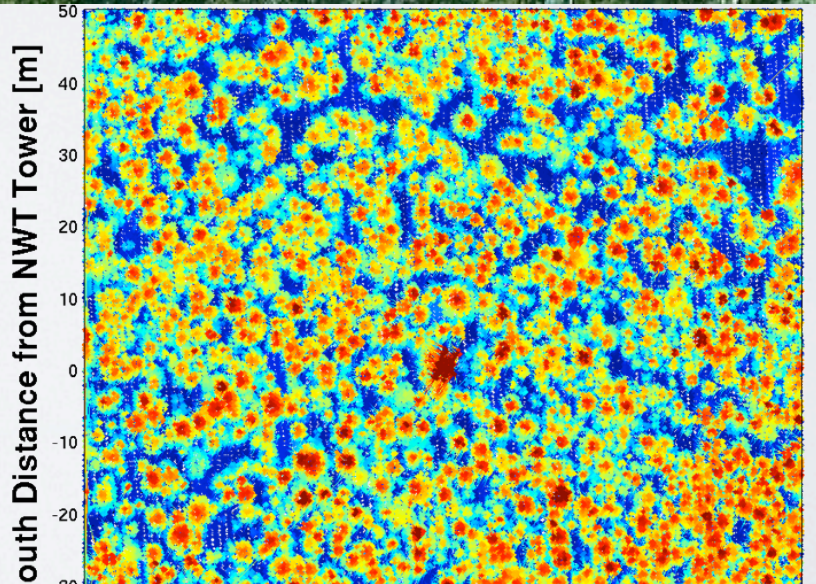
v does snow modify the scalar fluxes (heat, water

v heterogeneous is the subcanopy region?

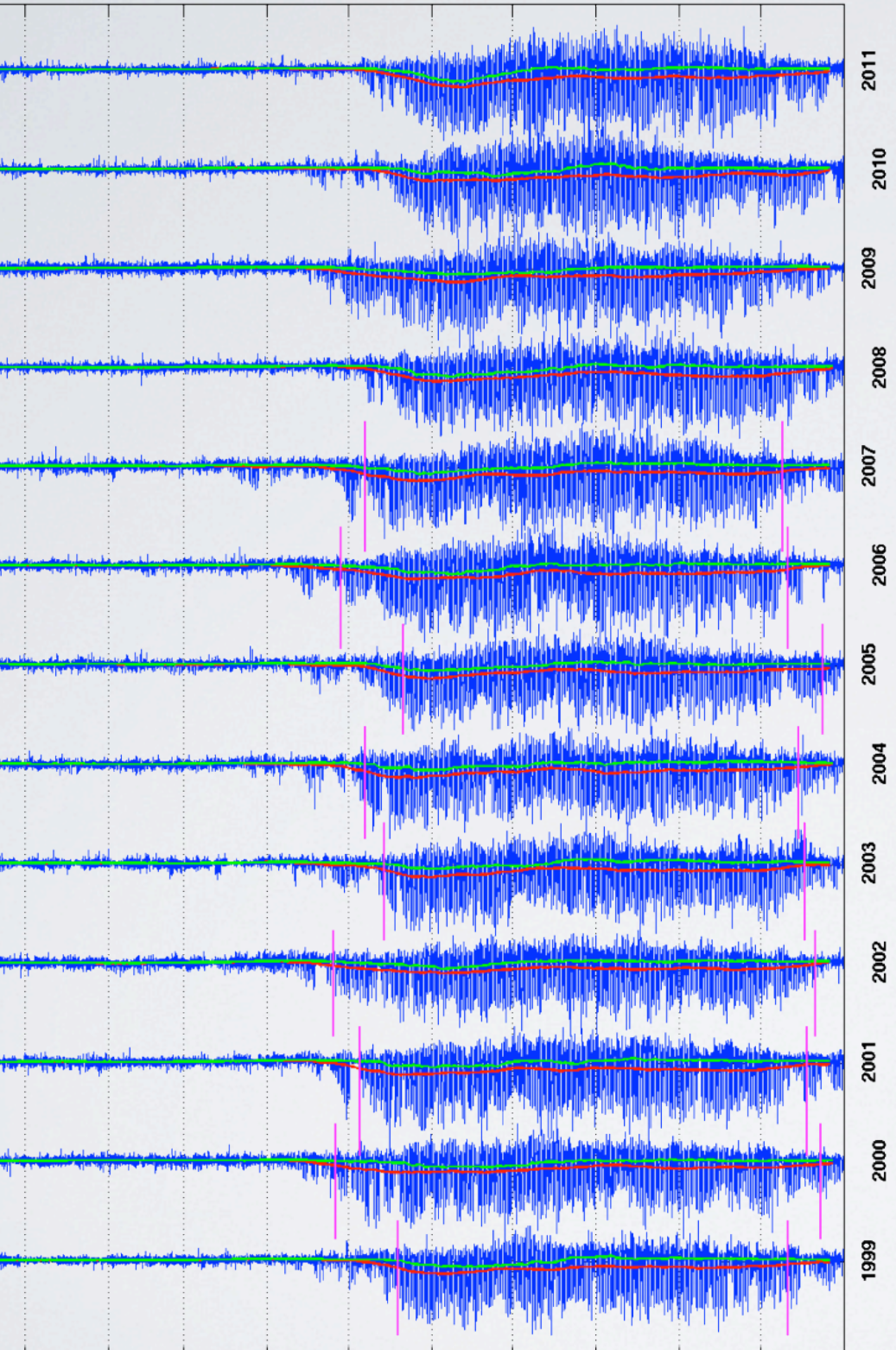
nections between water and carbon cycling?

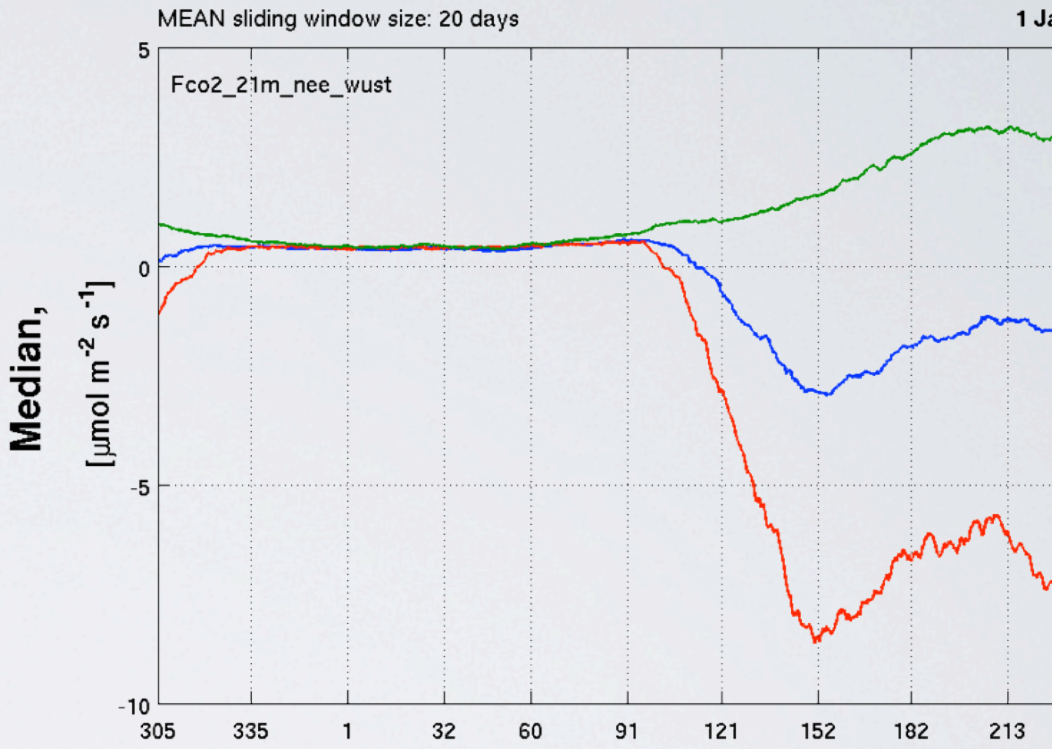
3400
LTER C-1
Willow Tower
17 m
Pine Tower
34 m
SNOTEL
(Niwot)
Aspen Tower
34 m
FOURMILE CR
DRAINAGE
ARAPAHO MORAINE
SNOTEL
(University Camp)
AmeriFlux
NWT Tower
COMO CRE
DRAINAGE
3100

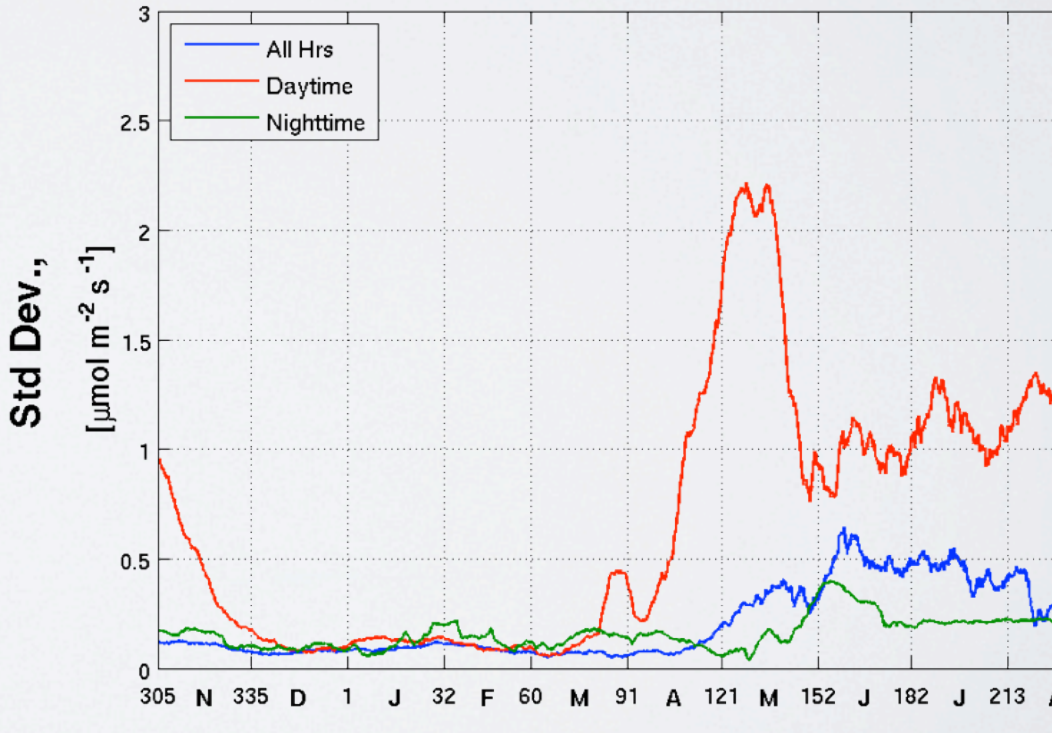
es	46% Subalpine Fir - 28% Engelmann Spruce – 26% Lodgepole Pine
e	~ 100 years
	~ 4.2 m^2 m^{-2}
py nt	~11.4 m
Gap	~ 17 %

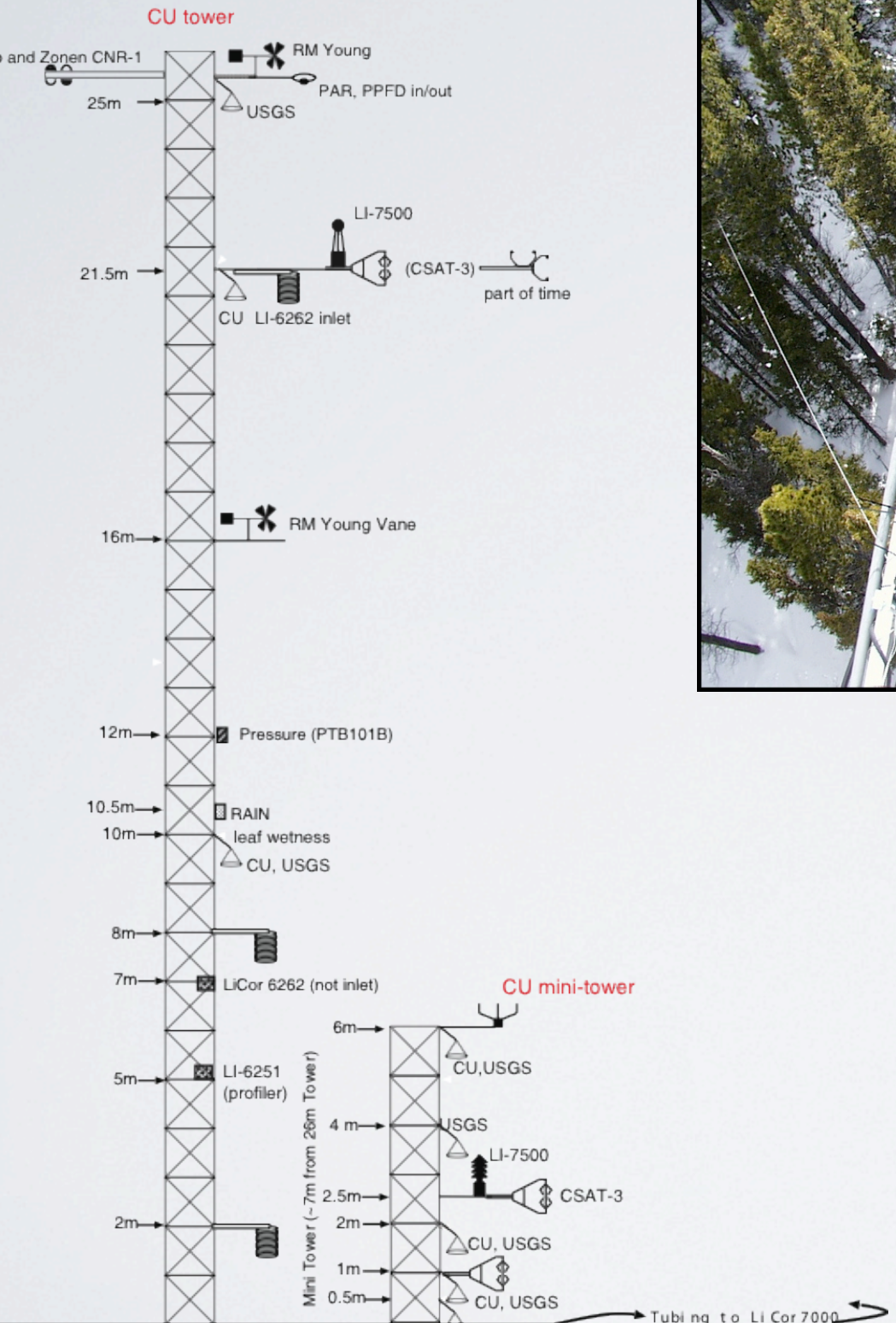


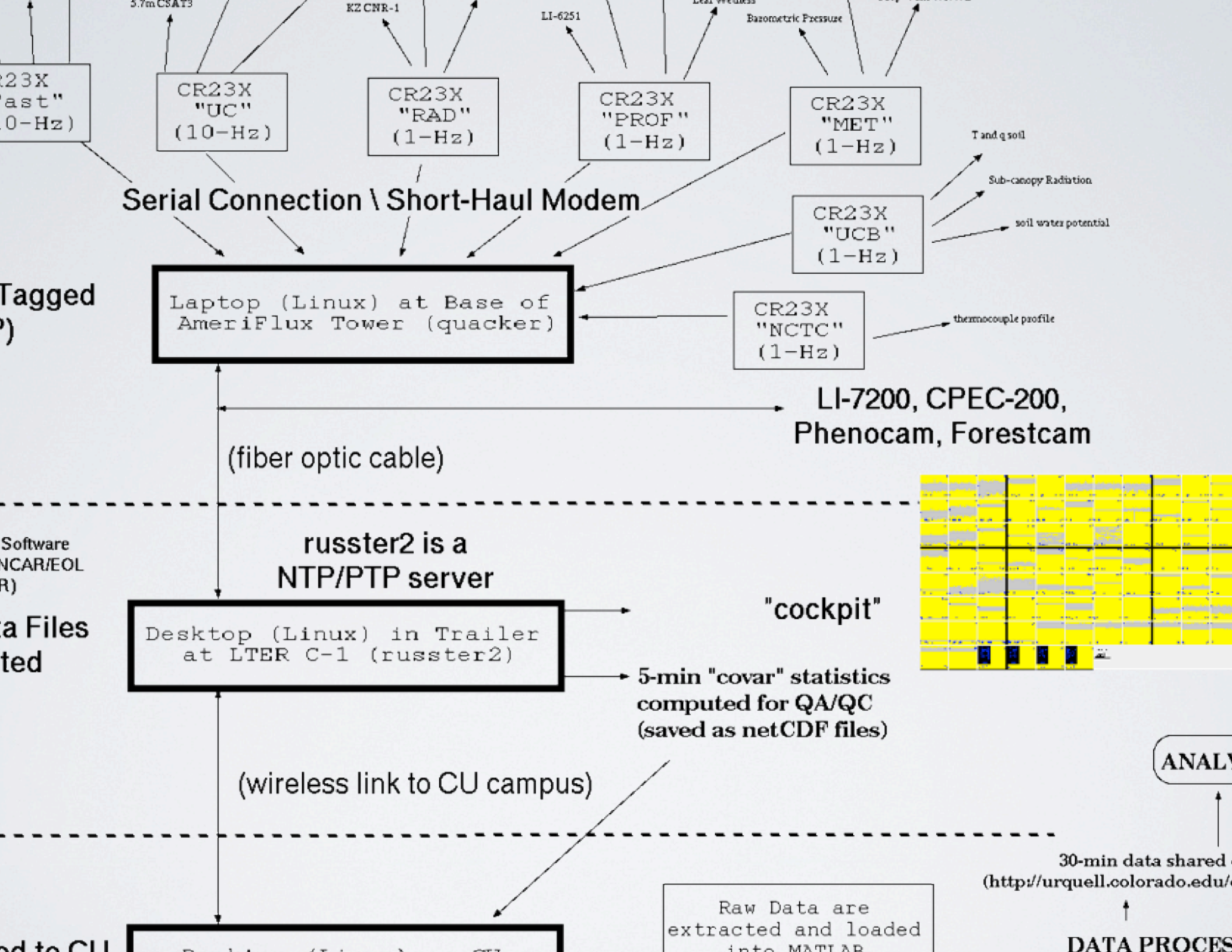
EAN 20-Day MEDIAN

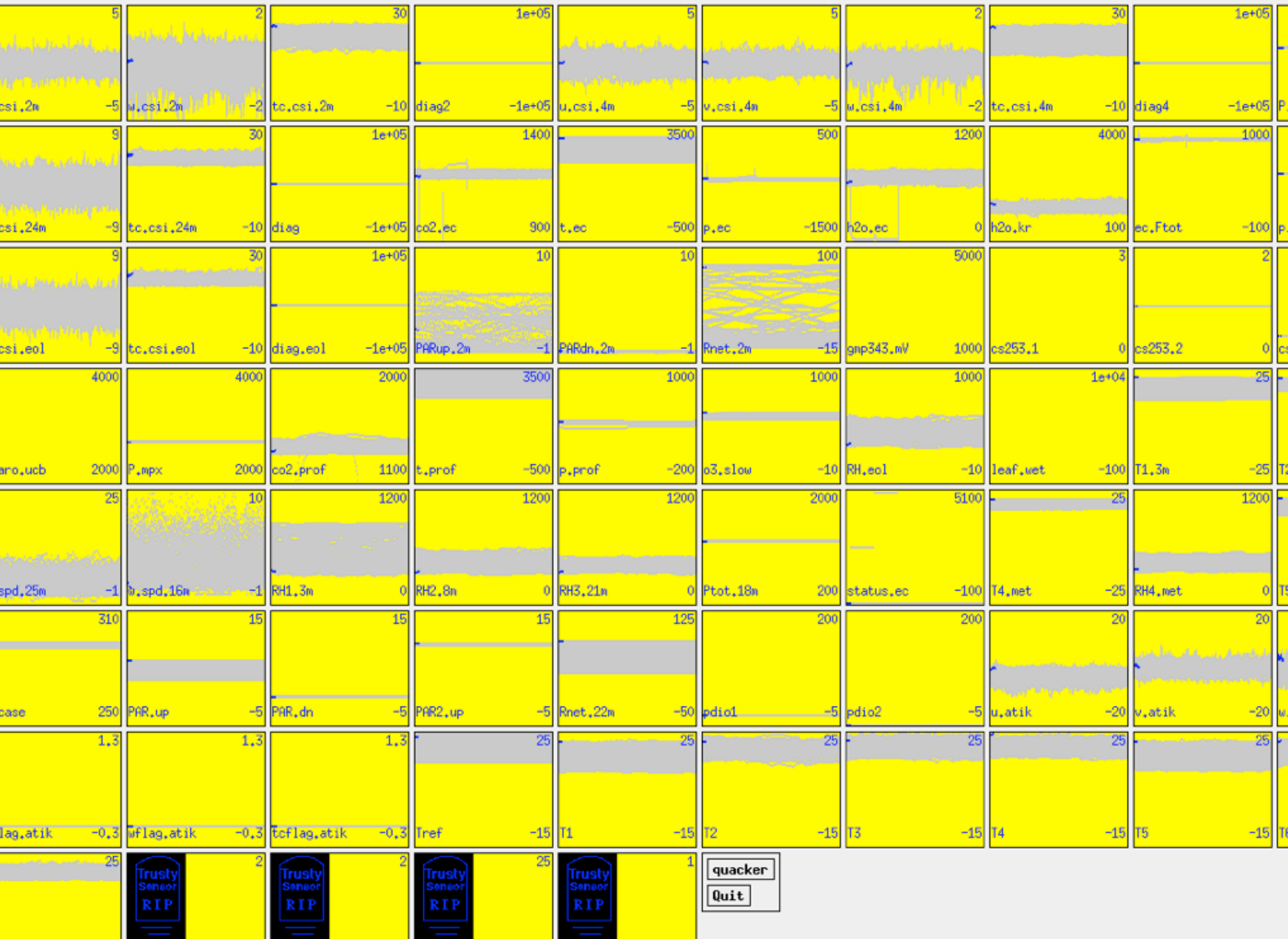







CU tower
and Zonen CNR-1
RM Young
PAR, PPFD in/out
25m
USGS
LI-7500
21.5m
(CSAT-3)
part of time
CU LI-6262 inlet
16m
RM Young Vane
12m
Pressure (PTB101B)
10.5m
RAIN
10m
leaf wetness
CU, USGS
8m
7m
LiCor 6262 (not inlet)
CU mini-tower
6m
CU,USGS
5m
LI-6251
(profiler)
Mini Tower (~7m from 26m Tower)
4 m
USGS
LI-7500
2.5m
CSAT-3
2m
2m
CU, USGS
1m
0.5m
CU, USGS
Tubing to Li Cor 7000


3.7m CSAT3
KZ CNR-1
LI-6251
Barometric Pressure
CR23X "UC" (10-Hz)
CR23X "RAD" (1-Hz)
CR23X "PROF" (1-Hz)
CR23X "MET" (1-Hz)
T and q soil
Sub-canopy Radiation
soil water potential
CR23X "UCB" (1-Hz)
Serial Connection \ Short-Haul Modem
Laptop (Linux) at Base of AmeriFlux Tower (quacker)
CR23X "NCTC" (1-Hz)
thermocouple profile
LI-7200, CPEC-200, Phenocam, Forestcam
(fiber optic cable)
russter2 is a NTP/PTP server
Desktop (Linux) in Trailer at LTER C-1 (russter2)
"cockpit"
5-min "covar" statistics computed for QA/QC (saved as netCDF files)
(wireless link to CU campus)
30-min data shared
Raw Data are extracted and loaded


csi.2m
w.csi.2m
tc.csi.2m
diag2
u.csi.4m
v.csi.4m
w.csi.4m
tc.csi.4m
diag4
csi.24m
tc.csi.24m
diag
co2.ec
t.ec
p.ec
h2o.ec
h2o.kr
ec.Ftot
csi.eol
tc.csi.eol
diag.eol
PARup.2m
PARdn.2m
Rnet.2m
gnp343.mV
cs253.1
cs253.2
aro.ucb
P.mpx
co2.prof
t.prof
p.prof
o3.slow
RH.eol
leaf.wet
T1.3m
spd.25m
w.spd.16m
RH1.3m
RH2.8m
RH3.21m
Ptot.18m
status.ec
T4.met
RH4.met
case
PAR.up
PAR.dn
PAR2.up
Rnet.22m
pdio1
pdio2
u.atik
v.atik
lag.atik
wflag.atik
tcflag.atik
Tref
T1
T2
T3
T4
T5
Trusty Sensor RIP
quacker
Quit

Questions?